CLAIMS

What is claimed is:

1. A method comprising:

depositing a film on a substrate, the film containing metal;

masking a desired portion of the film leaving an undesired portion of the film exposed; and

using a chelating agent to remove the undesired portion of the film.

2. The method of claim 1 wherein the film is a film selected from the group consisting of a metal film and a metal-based film.

3. The method of claim 2 wherein the chelating agent does not impair a non-metal film previously deposited upon the substrate.

4. The method of claim 2 wherein masking the desired portion of the film includes depositing a photoresist on the metal film and patterning the photoresist to mask the desired portion of the film and expose the undesired portion of the film.

5. The method of claim 2 wherein chelating agent is employed in a solution at a concentration ranging from 0.5 – 5 moles/liter.

6. The method of claim 5 wherein the chelating agent is employed in a solution selected from the group consisting of an acidic solution, a basic solution, a solvent solution, and a de-ionized water solution.

7. The method of claim 2 wherein the chelating agent is selected based upon the composition of the film.

8. The method of claim 6 wherein the solution is selected based upon the composition of the film.

9. An etchant comprising:

a liquid media; and

a chelating agent dissolved in the liquid media, the chelating agent tailored to target a specific metal, a concentration of the chelating agent in the liquid media sufficient to etch a film composed of the specific metal.

10. The etchant of claim 9 wherein the concentration of the chelating agent in the liquid media is in a range of approximately 0.5 – 5 moles/liter.

11. The etchant of claim 9 wherein the liquid media is a liquid media selected from the group consisting of an aqueous acid media with oxidant, an aqueous acid media without oxidant, an aqueous basic media with oxidant, an aqueous basic media without oxidant, and a solvent media without oxidant having a pH of approximately seven.

12. The etchant of claim 9 further comprising:

one or more additional chelating agents dissolved in the liquid media, each of the additional chelating agents tailored to target an additional specific metal.

13. A method comprising:

depositing a metallic film on a substrate, the metallic film containing one or more specific metals;

depositing a layer of photoresist on the metallic film;

patterning the photoresist such that a desired portion of the metallic film is masked and an undesired portion of the metallic film is exposed;

selecting one or more chelating agents based upon the one or more specific metals contained in the metallic film;

using the one or more chelating agents to remove the undesired portion of the metallic film.

14. The method of claim 13 further comprising:

selecting a media in which to employ the one or more chelating agents based upon the one or more specific metals contained in the metallic film.

15. The method of claim 13 wherein the one or more chelating agents do not impair a second metallic film that does not contain the one or more specific metals contained in the metallic film.

16. The method of claim 13 wherein the one or more chelating agents are employed in a solution at a concentration ranging from approximately 0.5 – 5 moles/liter.

17. The method of claim 14 wherein the one or more chelating agents are employed in a solution selected from the group consisting of an acidic solution, a basic solution, a solvent solution, and a de-ionized water solution.

18. A method comprising:

depositing a metallic film on a substrate, the metallic film containing one or more specific metals;

depositing a layer of photoresist on the metallic film;

patterning the photoresist such that a desired portion of the metallic film is masked and an undesired portion of the metallic film is exposed;

selecting a media in which to employ one or more chelating agents based upon the one or more specific metals contained in the metallic film;

employing the one or more chelating agents to remove the undesired portion of the metallic film.

19. The method of claim 18 further comprising:

selecting the one or more chelating agents based upon the one or more specific metals contained in the metallic film.

20. The method of claim 19 wherein the media is a liquid media selected from the group consisting of an aqueous acid media with oxidant, an aqueous acid media without oxidant, an aqueous basic media with oxidant, an aqueous basic media without oxidant, and a solvent media without oxidant having a pH of approximately seven.

21. The method of claim 18 wherein the one or more chelating agents are employed in a solution at a concentration ranging from approximately 0.5 – 5 moles/liter.